

APHIS – Plant Protection and Quarantine
Weekly Situation Report: Potato Cyst Nematode
October 23 – October 29, 2006

Detection and Survey Information:

- **Survey:**

Survey teams continued to implement the delimiting survey plan:

- 2,065 additional soil samples were collected this week as part of the ongoing detection and delimiting survey.
- To date, a total of 29,319 soil samples have been collected from 648 fields and facilities since the initial PCN find in Idaho last April.

- **Diagnostics:**

Soil samples are forwarded to the ISDA Food Quality Assurance Laboratory in Twin Falls or the University of Idaho Nematology Laboratory in Parma, Idaho for the initial screening. Presumptive PCN positive samples are forwarded to the ARS Nematology Laboratory in Beltsville for confirmation.

- 928 additional soil samples were examined this week at the Twin Falls laboratory.
- To date, over 19,200 soil samples from 232 production fields, 404 seed fields, and 56 storage and packaging facilities have been examined since the initial find of PCN in April 2006. Except for the seven positive fields within the regulated area, all other soil samples have been determined *not* to contain PCN.
- The University of Idaho Nematology Laboratory in Parma has also processed an additional 3,500 samples collected through the CAPS program and except for the initial positive sample from the ISDA grading facility, all other samples have been found to be free of PCN.

- **Traceback and Traceforward:**

- Traceback investigations to determine the source of PCN in the confirmed positive fields continue, including farming practices, seed sources, tillage equipment, and other sources.
- All fields directly associated with the confirmed positive fields have been identified. All fields are within a five mile radius of the confirmed positive field in Bingham and Bonneville counties.

Operational Update:

- **Incident Command:**

- A total of 116 on-site personnel (17 ISDA, 9 CBP, and 90 APHIS), assumed various roles within the ICS structure this week.

- Unified Command (UC) continued to implement the delimiting survey associated with the confirmed positive field and associated fields.
- UC continues to implement the Federal Order and State Rule, restricting the movement of regulated articles from the regulated area.
- **Regulatory Actions:**
 - Federal Emergency Action Notice (EAN): one field in the regulated area is currently under an EAN, where no potatoes are to be planted, no soil is to leave and equipment must be cleaned. In addition, the current potato crop is to be moved under a Limited Permit at harvest and tare soil must be buried according to the approved processes. Also under EAN are two storage cellars receiving potatoes from untested fields in the regulated area.
 - **Limited Permit:** A total of 996 limited permits have been issued to date for movement of potatoes from or within the regulated area.
 - **Certificates:** A total of 225 certificates have been issued to date for movement of cleaned farm equipment.
 - **Compliance Agreements:** A total of 80 compliance agreements have been signed to date by potato growers, shippers, processors, or handlers.
- **Treatment:**
 - Steam treatment and pressure washing of farm equipment from infested fields continued.

Trade:

- Japan has suspended all potato imports from the U.S.
- Canada, Korea, and Mexico suspended potato shipments from the State of Idaho.
- Taiwan, Malaysia, and Singapore have asked for information, but have taken no action to suspend potato imports from the United States.

Communications Update:

- Public Information Officers (PIO) continued to field questions from local and national media regarding the PCN find in Idaho.
- UC continued to inform producers and industry of program activities and progress in Idaho.

Issues of Interest:

- Personnel from several states visited the PCN program this week; received a program overview, toured the Idaho Falls program office, warehouse facility, mechanical sampling equipment, sanitation, and potato and seed potato production areas on the Upper Snake River Plain.

Background:

- On April 13, 2006, a sample comprised of tare soil from a grading station in Blackfoot, ID was determined to contain *Globodera pallida*, the potato cyst nematode (PCN). This was the first detection of the pest in the United States. The nematode cysts were detected during a routine survey of tare soil at an ISDA grader facility in eastern Idaho.
- On June 13, 2006, soil samples collected from a 45-acre field in northern Bingham County tested positive for PCN based on morphological and DNA analyses. Production in the area is for fresh market and processed potatoes, not seed potatoes.
- On July 12, 2006, a soil sample from another field within the same farming operation in northern Bingham County also tested positive for PCN.
- On September 27, 2006, soil samples from three additional fields within close proximity to the two initial fields were confirmed positive for PCN.
- On October 27, 2006, soil samples from two additional fields within close proximity to the five fields were also confirmed positive for PCN.
- The potato cyst nematode is a major pest of potato crops in cool-temperate areas, and is recognized as one of the most difficult potato pests to control.
- The potato cyst nematode thought to have originated in Peru and is now widely distributed in many potato-growing regions of the world.
- The potato cyst nematode has a very narrow host range including potatoes, tomatoes, eggplant, and some weeds.
- The symptoms that potatoes show when attacked by potato cyst nematodes are not specific. Patches of poor growth generally occur in the crop, sometimes with yellowing, wilting or death of foliage. Even with minor symptoms on the foliage, potato size can be affected.
- PCN control is accomplished by planting non-host crops for several years. Nematicides can reduce nematode populations below economically damaging levels. Planting non-host crops is recommended on land known to be PCN infested.
- Economic damage caused by the potato cyst nematode can be severe. If left uncontrolled, these nematodes can cause up to 80 percent yield loss. The introduction of this pest could potentially result in a loss of domestic or foreign markets for U.S. grown potatoes and other commodities.